## ABSTRACT OF THE DISCLOSURE

Instruments for performing percutaneous biopsy procedures are disclosed, which have advantageous features for improving functionality and performance over prior art devices. These instruments comprise two types, single-use devices, and multiple-use devices having active tissue capture capability. Improved features include the ability to retrieve and evaluate multiple tissue samples during a single insertion procedure, without physical handling of the samples, as well as constructional features, such as a molded tissue cassette housing, variant vacuum port embodiments suited for different tissue environments, and a method for backflushing the instrument to remove biological debris, among others.